

I claim:

1           1. An armor comprising:

2           at least one projectile destroying layer having a woven  
3           ballistic fabric with yarn cross overs and metal disks traversed  
4           by the yarns at the cross overs; and

5           at least one layer containing ballistic fibers for  
6           trapping projectile fragments behind said projectile destroying  
7           layer.

1           2. The armor defined in claim 1 wherein said woven  
2           ballistic fabric is composed of high tensile strength fibers such  
3           as aramid, polyethylene or poly-p-phenylenebenzo-bis oxazole  
4           yarns.

1           3. The armor defined in claim 2 wherein said yarns have  
2           a denier between 19 and 1500 dtex.

1           4. The armor defined in claim 3 wherein said ballistic  
2           fabric has a yarn density of 5 threads per inch to 100 threads  
3           per inch.

1           5. The armor defined in claim 1 which comprises a  
2           plurality of said projectile destroying layers and a plurality of  
3           said layers for trapping projectile fragments in a ballistic  
4           fabric shell forming a body armor.

1           6. The armor defined in claim 1 wherein said disks are  
2           composed of titanium, titanium alloy, or other high tensile  
3           strength ductile metal or alloy.

1           7. The armor defined in claim 6 wherein said disks are  
2           circular.

1               8. The armor defined in claim 6 wherein said disks have  
2 irregular or polygonal contours.

1               9. The armor defined in claim 1 wherein said ballistic  
2 fiber is composed of a high tensile strength fiber such as  
3 aramid, polyethylene or poly-p-phenylenebenzo-bis oxazole fiber.

1               10. A projectile destroying layer for use in an armor  
2 and compressed of a woven ballistic fabric with yarn cross overs  
3 and metal disks anchored at at least some of said cross overs and  
4 consisting of a metal capable of tearing apart a projectile  
5 entering said layer.

1               11. The projectile destroying layer defined in claim 10  
2 wherein said disks are composed of titanium, titanium alloy, or  
3 other high tensile strength ductile metal or alloy.

1               12. The projectile destroying layer defined in claim 11  
2 wherein said fabric is composed of at least one yarn spun from a  
3 high tensile strength fiber such as aramid, polyethylene or  
4 poly-p-phenylene benzo-bis-oxazole fiber.

1               13. The projectile destroying layer defined in claim 12  
2 wherein said disks are provided in a density of 10 to 500 per  
3 square inch.

1               14. The projectile destroying layer defined in claim 13  
2 wherein said fabric has a thread density for the warp and weft of  
3 5 to 100 threads per inch.

1               15. The projectile destroying layer defined in claim 14  
2 wherein said yarn has a diameter of 10 to 1500 dtex.

1               16. A projectile destroying structure for an armor  
2 consisting of a plurality of layers as defined in claim 10.

1               17. The structure defined in claim 16 which comprises 2  
2       to 155 layers.

1               18. In an armor, at least one projectile-damaging layer  
2       comprised of fabric having beads with edges positioned to engage  
3       flanks of an oncoming projectile and to shred the projectile  
4       while said fabric captures fragments of the shredded projectile.

1               19. The layer defined in claim 9 wherein said beads are  
2       disks.